



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-1013; Project Identifier MCAI-2020-01530-T; Amendment 39-21980; AD 2022-06-14]

RIN 2120-AA64

Airworthiness Directives; BAE Systems (Operations) Limited Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2017-12-08, which applied to all BAE Systems (Operations) Limited Model BAe 146-100A, -200A, and -300A airplanes; and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A airplanes. AD 2017-12-08 required revising the maintenance or inspection program, as applicable, to incorporate new or revised structural inspection requirements. This AD requires revising the existing maintenance or inspection program, as applicable, to incorporate new or more restrictive airworthiness limitations. This AD was prompted by a determination that new or more restrictive airworthiness limitations are necessary. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact BAE Systems

(Operations) Limited, Customer Information Department, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, United Kingdom; telephone +44 1292 675207; fax +44 1292 675704; email RAPublications@baesystems.com; Internet <http://www.baesystems.com/Businesses/RegionalAircraft/index.htm>. You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-1013.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-1013; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Todd Thompson, Aerospace Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3228; email todd.thompson@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

The Civil Aviation Authority (CAA), which is the aviation authority for the United Kingdom, has issued CAA AD G-2021-0011, dated October 8, 2021 (CAA AD G-2021-0011) (also referred to as the Mandatory Continuing Airworthiness Information,

or the MCAI), to correct an unsafe condition for all BAe 146 and AVRO 146-RJ airplanes. You may examine the MCAI in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-1013.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2017-12-08, Amendment 39-18923 (82 FR 27414, June 15, 2017) (AD 2017-12-08). AD 2017-12-08 applied to all BAE Systems (Operations) Limited Model BAe 146-100A, -200A, and -300A airplanes; and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A airplanes. The NPRM published in the *Federal Register* on November 23, 2021 (86 FR 66471). The NPRM was prompted by a determination that new or more restrictive airworthiness limitations are necessary. The NPRM proposed to require revising the existing maintenance or inspection program, as applicable, to incorporate new or more restrictive airworthiness limitations. The FAA is issuing this AD to address fatigue cracking of certain structural elements, which could adversely affect the structural integrity of the airplane. See the MCAI for additional background information.

Comments

The FAA gave the public the opportunity to participate in developing this final rule. The FAA has considered the comment received. An individual indicated their support for the NPRM.

Conclusion

The FAA reviewed the relevant data, considered the comment received, and determined that air safety and the public interest require adopting this final rule as proposed, except for minor editorial changes. The FAA has determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and

- Do not add any additional burden upon the public than was already proposed in the NPRM.

Related Service Information under 1 CFR Part 51

BAE Systems has issued Chapter 05, Time Limits/Maintenance Checks, of the BAe 146 Series/AVRO 146-RJ Series Aircraft Maintenance Manual, Revision 132, dated June 15, 2021. This service information describes airworthiness limitations, including life limits, maintenance tasks, and critical design configuration control limitations (CDCCLs).

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

The FAA estimates that this AD affects 30 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

The FAA estimates the total cost per operator for the retained actions from AD 2017-12-08 to be \$7,650 (90 work-hours x \$85 per work-hour).

The FAA has determined that revising the maintenance or inspection program takes an average of 90 work-hours per operator, although the agency recognizes that this number may vary from operator to operator. Since operators incorporate maintenance or inspection program changes for their affected fleet(s), the FAA has determined that a per-operator estimate is more accurate than a per-airplane estimate. Therefore, the agency estimates the average total cost per operator to be \$7,650 (90 work-hours x \$85 per work-hour).

The FAA estimates the total cost per operator for the new actions to be \$7,650 (90 work-hours x \$85 per work-hour).

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive (AD) 2017-12-08, Amendment 39-18923

(82 FR 27414, June 15, 2017); and

b. Adding the following new AD:

2022-06-14 BAE Systems (Operations) Limited: Amendment 39-21980; Docket No.

FAA-2021-1013; Project Identifier MCAI-2020-01530-T.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2017-12-08, Amendment 39-18923 (82 FR 27414, June 15, 2017) (AD 2017-12-08).

(c) Applicability

This AD applies to all BAE Systems (Operations) Limited airplanes, certificated in any category, identified in paragraphs (c)(1) and (2) of this AD.

(1) Model BAe 146-100A, -200A, and -300A airplanes.

(2) Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 05, Time Limits/Maintenance Checks.

(e) Reason

This AD was prompted by a determination that new or more restrictive airworthiness limitations are necessary. The FAA is issuing this AD to address fatigue cracking of certain structural elements, which could adversely affect the structural integrity of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Retained Revision to the Maintenance or Inspection Program, with No Changes.

This paragraph restates the requirements of paragraph (i) of AD 2017-12-08, with no changes. Within 90 days after July 20, 2017 (the effective date of AD 2017-12-08):
Revise the maintenance or inspection program, as applicable, to incorporate new and revised limitations, tasks, thresholds, and intervals using a method approved by the Manager, Large Aircraft Section, International Validation Branch, FAA.

Note 1 to paragraph (g): An additional source of guidance for the actions specified in paragraph (g) of this AD can be found in BAe 146/AVRO 146-RJ Airplane Maintenance Manual, Revision 112, dated October 15, 2013.

Note 2 to paragraph (g): An additional source of guidance for the actions specified in paragraph (g) of this AD can be found in Corrosion Prevention Control Program (CPCP) Document No. CPCP-146-01, Revision 4, dated September 15, 2010.

Note 3 to paragraph (g): An additional source of guidance for the actions specified in paragraph (g) of this AD can be found in Supplemental Structural Inspections Document (SSID) Document No. SSID-146-01, Revision 2, dated August 15, 2012.

Note 4 to paragraph (g): An additional source of guidance for the actions specified in paragraph (g) of this AD can be found in Maintenance Review Board Report Document No. MRB 146-01, Issue 2, Revision 19, dated August 2012.

Note 5 to paragraph (g): An additional source of guidance for the actions specified in paragraph (g) of this AD can be found in BAE Systems (Operations) Limited Inspection Service Bulletin ISB.53-237, Revision 1, dated April 2, 2013.

(h) Retained No Alternative Actions, Intervals, and/or Critical Design Configuration Control Limitations (CDCCLs), with No Changes

This paragraph restates the requirements of paragraph (j) of AD 2017-12-08, with no changes. Except as specified in paragraph (i) of this AD: After accomplishing the revision required by paragraph (g) of this AD, no alternative actions (e.g., inspections), intervals, and/or CDCCLs may be used, unless the actions, intervals, and/or CDCCLs are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (k)(1) of this AD.

(i) New Maintenance or Inspection Program Revision

Within 90 days after the effective date of this AD, revise the existing maintenance or inspection program, as applicable, to incorporate the information specified in Chapter 05, Time Limits/Maintenance Checks, of the BAE Systems BAe 146 Series/AVRO 146-RJ Series Aircraft Maintenance Manual, Revision 132, dated June 15, 2021. The initial compliance time for doing the tasks is at the time specified in Chapter 05, Time Limits/Maintenance Checks, of the BAE Systems BAe 146 Series/AVRO 146-RJ Series Aircraft Maintenance Manual, Revision 132, dated June 15, 2021, or within 90 days after the effective date of this AD, whichever occurs later. Accomplishing the revision of the existing maintenance or inspections program required by this paragraph terminates the actions required by paragraph (g) of this AD.

(j) New No Alternative Actions, Intervals, or CDCCLs

After the existing maintenance or inspection program has been revised as required by paragraph (i) of this AD, no alternative actions (e.g., inspections), intervals, or CDCCLs may be used unless the actions, intervals, and/or CDCCLs are approved as an AMOC in accordance with the procedures specified in paragraph (k)(1) of this AD.

(k) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, Large Aircraft Section, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the Large Aircraft Section, International Validation Branch, send it to the attention of the person identified in paragraph (l)(2) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(i) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(ii) AMOCs approved for AD 2017-12-08 are approved as AMOCs for the corresponding provisions of this AD.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, Large Aircraft Section, International Validation Branch, FAA; or the Civil Aviation Authority (CAA); or BAE Systems (Operations) Limited's CAA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(l) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) CAA AD G-2021-0011, dated October 8, 2021, for related information. This MCAI may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-1013.

(2) For more information about this AD, contact Todd Thompson, Aerospace

Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3228; email todd.thompson@faa.gov.

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (m)(3) and (4) of this AD.

(m) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Chapter 05, Time Limits/Maintenance Checks, of the BAE Systems BAe 146 Series/AVRO 146-RJ Series Aircraft Maintenance Manual, Revision 132, dated June 15, 2021.

(ii) [Reserved]

(3) For service information identified in this AD, contact BAE Systems (Operations) Limited, Customer Information Department, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, United Kingdom; telephone +44 1292 675207; fax +44 1292 675704; email RAPublications@baesystems.com; Internet <http://www.baesystems.com/Businesses/RegionalAircraft/index.htm>.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on March 10, 2022.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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